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(21)Application number : 09-049956 (71)Applicant : LUCENT TECHNOL INC

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## (54) PATTERN FORMING METHOD FOR PRODUCING DEVICE

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To make a resist material contg. a deriv. of a (meth)acrylate copolymer fit for a lithographic process using light of 193nm by using an energy sensitive resist material contg. a polymer having satd. alicyclic parts.

**SOLUTION:** An energy sensitive resist material contg. a polymer having satd. alicyclic parts incorporated into the backbone of the polymer or attached to the backbone through satd. hydrocarbon combining groups is utilized. About 25-50mol% of the polymer is made from a monomer contg. such an alicyclic part. The polymer is a copolymer of the monomer with at least one other monomer. The alicyclic part of the monomer is one or more hydrocarbon rings each having one or more ethylenic unsatd. bonds. The 2nd monomer is copolymerizable with the alicyclic monomer by free radical polymn.

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